Nos. 14-840, 14-841

FEB 17 2015

In The
Supreme Court of the United States

FEDERAL ENERGY REGULATORY COMMISSION,

Petitioner,

v.

ELECTRIC POWER SUPPLY ASSOCIATION, ET AL.,

Respondents.

EnerNOC, INC., ET AL.,

Petitioners,

v.

ELECTRIC POWER SUPPLY ASSOCIATION, ET AL.,

Respondents.

On Petitions For Writ Of Certiorari To The United States Court Of Appeals For The District Of Columbia Circuit

JOINT STATE BRIEF IN SUPPORT OF PETITIONS FOR WRIT OF CERTIORARI

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QUESTION PRESENTED

Whether FERC's jurisdiction over wholesale electric energy markets under the Federal Power Act extends to approving the tariffs of jurisdictional Regional Transmission Organizations/Independent System Operators that compensate demand response resources that participate in such wholesale markets where the relevant state or local regulatory authority has not restricted such participation.

PARTIES TO THE PROCEEDING

The California Public Utilities Commission was a petitioner at the court of appeals below, regarding the issue of compensation of demand response resources only. The Maryland Public Service Commission and Pennsylvania Public Utility Commission were respondents at the court of appeals. The parties to the proceeding below were:

American Forest & Paper Association
American Municipal Power, Inc.
American Public Power Association
California Public Utilities Commission
California Independent System Operator Corporation
Coalition of MISO Transmission Customers
Edison Electric Institute
Electric Power Supply Association
EnergyConnect, Inc.
EnerNOC, Inc.
Federal Energy Regulatory Commission
Lower Mount Bethel Energy, LLC
Madison Gas and Electric Company
Maryland Public Service Commission
Missouri Joint Municipal Electric Utility Commission
Missouri River Energy Services
National Rural Electric Cooperative Association
Old Dominion Electric Cooperative
Pennsylvania Public Utility Commission
PJM Industrial Customer Coalition
PJM Interconnection, LLC
PJM Power Providers Group
PPL Brunner Island, LLC
PPL Electric Utilities Corporation
PPL EnergyPlus, LLC

PARTIES TO THE PROCEEDING – Continued

PPL Holtwood, LLC
PPL Maine, LLC
PPL Martins Creek, LLC
PPL Montour, LLC
PPL Susquehanna, LLC
PSEG Energy Resources & Trade LLC
PSEG Power LLC
Public Service Electric and Gas Company
Southern Minnesota Municipal Power Agency
Steel Producers
Viridity Energy, Inc.
Wal-Mart Stores, Inc.
WPPI Energy

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JOINT STATE BRIEF IN SUPPORT OF PETITIONS FOR WRIT OF CERTIORARI

The Public Utilities Commission of the State of California (California PUC), the Maryland Public Service Commission (Maryland PSC) and the Pennsylvania Public Utilities Commission (Pennsylvania PUC); together Joint States, respectfully submit this brief in support of the petitions for writ of certiorari filed by EnerNOC, Inc., et al. (EnerNOC Petition, No. 14-840) and the Federal Energy Regulatory Commission (FERC Petition, No. 14-841), which have been consolidated. California was a petitioner at the Court of Appeals; Maryland and Pennsylvania were respondents at the Court of Appeals.

STATEMENT

The introduction, statement and background provided by the Solicitor General and EnerNOC in their respective Petitions for Certiorari accurately set forth the material facts relating to FERC's wholesale electric markets and its demand response programs, as well as the procedural history of the case below and the Joint States adopt them herein. The Joint States add the following pertinent information:

Prior to energy market restructuring, vertically integrated utilities managed short-term balancing of energy supply and demand. "[T]he transmission facilities of any one utility in a region are part of a larger, integrated transmission system which, from

an electrical engineering perspective, operates as a single machine" to balance energy supply and demand in the short term.[1] An undesirable result of grid management by vertically integrated utilities is that "when utilities control monopoly transmission facilities and also have power marketing interests, they have poor incentives to provide equal quality transmission service to their power marketing competitors."[2]

Title XII of the Energy Policy Act of 2005 (EPAct), which facilitates the creation of Independent System Operators and Regional Transmission Organizations (ISOs/RTOs) to promote grid reliability, expressly retains state authority to assure the reliability of the long-term energy supply within their jurisdictions.[3] Pursuant to its authority over energy procurement, the California PUC has taken an active role in balancing California's energy reliability needs against the costs of infrastructure investments.[4] In accord with their historic role of providing reliable resources for their retail customers, each of the Joint States has developed and maintained detailed plans

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[1] *Regional Transmission Organizations*, 89 FERC ¶ 61,285 (1999) (Order No. 2000), issued on December 20, 1999 in Docket No. RM99-2 at page 32.

[2] Order No. 2000 at page 35.

[3] Aug. 8, 2005, P.L. 109-58, Title XII, Subtitle A, § 1211(a), 119 Stat. 941 [Energy Policy Act of 2005] codified at 16 U.S.C. § 824o(i).

[4] Cal. Pub. Utils. Code § 380 (2006) requiring that the California PUC develop a Resource Adequacy plan in collaboration with the California Independent System Operator.

to assure the reliability of electric supply for the safety and convenience of their retail customers.[5] Such resources, which provide standing capacity to support the grid, are often required by state-mandated or ISO/RTO-operated capacity markets to bid into the relevant ISOs/RTOs to maintain grid reliability.

Wholesale energy markets, conversely, focus on the short-term reliability of the electric grid. For example, the California Independent System Operator (CAISO) runs a number of energy markets and energy balancing services markets from the day-ahead through real time.[6] The CAISO's energy markets use a full network model that anticipates supply, demand, and transmission losses; and produces prices at over 3000 points within its operational grid.[7] These

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[5] Cal. Pub. Utils. Code, Sec. 454.5, subd. (b) (requiring that retail utilities' procurement plans which extend up to a ten-year planning horizon match anticipated need with safe, reliable supply); Md. Code Ann., Public Utilities Article, §§ 5-101 and 7-510(c)(6) (requiring that the Maryland PSC assure "safe, adequate, reasonable and proper service for any class of public service company," and anticipate and meet "long-term, anticipated demand in the State for standard offer service and other electricity supply"); 52 Pa. Code §§ 57.141-57.154 and http://www.puc.pa.gov/General/publications_reports/pdf/EPO_2014.pdf.

[6] See http://www.caiso.com/market/Pages/MarketProcesses.aspx.

[7] See *California Independent System Operator Corporation Electric Tariff Filing to Reflect Market Redesign and Technology Upgrade*, filed on February 9, 2006, CAISO 2006 Market Filing at p. 6.

prices provide wholesale market signals to incent generators to supply energy where and when it is needed based on the price of energy at a given point on the grid. Generators and other entities participate in wholesale energy markets by submitting a bid into a given market specifying the volume and location at which it is willing to provide energy at a particular point on the grid. The CAISO's directions to scheduling coordinators that have bid into and cleared its market are referred to as "dispatch" of energy resources.

Ancillary services (regulation up, regulation down, spinning reserves and non-spinning reserves) are a group of products that a grid operator uses to maintain grid stability. A grid operator like the CAISO uses regulation services to maintain electric system frequency that can vary as supply and demand access the system, and must be maintained very narrowly around 60 hertz.[8] Ancillary services products address short-term imbalances in electricity markets by dispatching resources within seconds or minutes of an unacceptable imbalance of supply and demand. Generators that supply ancillary services ordinarily do so through ISO/RTO dispatched automated generator control technologies. Such technology is also available and currently in use for demand response in some wholesale markets. Demand response resources that meet similar technical requirements to

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[8] http://www.caiso.com/market/Pages/ProductsServices/Default.aspx.

those of traditional generators may also provide ancillary services to help maintain short-term grid stability.[9] Technology to support such dispatch, however, is costly.

The CAISO's current markets were explicitly designed to mitigate generator market power by increasing the ability to dispatch demand response resources through the same markets as other energy supplies.[10] The development and implementation of this very complex market system took many years, pursuant to many FERC orders, and continues to be refined.

The role of retail demand response that is *not* bid into wholesale markets, however, may be limited by the lack of integration of those services into the locational and temporal optimization that occurs in wholesale markets. This is because the retail load serving entities do not have the mass of continually changing information that an ISO/RTO uses to optimize delivery of energy on a least-cost basis with precise knowledge of current grid conditions. Thus, retail demand response that is integrated into the grid is a precise tool; whereas retail demand response that is dispatched without knowledge of short-term

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[9] http://www.enernoc.com/our-resources/term-pages/what-is-an-ancillary-services-market.

[10] *California Independent System Operator Corporation Electric Tariff Filing to Reflect Market Redesign and Technology Upgrade*, filed on February 9, 2006, Transmittal Letter at p. 5.

grid conditions may be either ineffective, or may inadvertently exacerbate rather than resolve adverse grid conditions.

Beyond this, retail demand response programs do not facilitate to customers immediate knowledge of energy prices or their ability to control their electricity bills by curtailing power use during periods of high energy demand in their specific location. This is because retail customers do not see the dollar value of the retail demand response services they provided, or the price of new generation that was avoided due to such demand response broken out as separate sections on their electric bill. The effects of retail demand response on customer bills, both as energy and as long-term capacity, occur long after the timeframe in which customers may directly impact grid conditions by curtailing their energy use. Thus, direct bidding of demand response into wholesale markets can provide more accurate market signals to consumers in addition to better performance of demand response to help balance energy supply and demand.

REASONS FOR GRANTING THE PETITIONS

In determining that FERC illegally infringed upon the states' retail jurisdiction by regulating how demand response is compensated in wholesale markets, the D.C. Circuit profoundly misconstrued the nature of demand response, which lies at the confluence of state and federal jurisdiction. Demand response

represents a resource that is vital to both retail and wholesale energy markets and it cannot be effectively regulated by either the states or FERC alone. FERC understood that basic premise, which is why it has always made the participation of demand response in wholesale markets contingent on state acquiescence. Furthermore, FERC never used its regulation of demand response in its wholesale markets to change a single retail rate, term or condition of service. Unfortunately, the D.C. Circuit's decision upsets the delicate jurisdictional balance achieved by FERC and leaves a regulatory void.

The panel's decision also will cause significant harm to wholesale markets, system reliability and state policy and environmental goals. Demand response provides a critical competitive presence in FERC's wholesale markets, limiting market power and lowering prices to end-use customers by billions of dollars. The resource also makes essential contributions to grid reliability, helping balance supply and demand at critical times and proving indispensable to grid operation in several recent weather emergencies. Finally, demand response contributes to state policy goals by serving as a substitute for high-cost and emissions-producing peak generators and enabling states to reduce their energy consumption. The D.C. Circuit's decision should be reviewed and reversed because it obstructs these many benefits and because it is legally wrong.

A. The Court of Appeals Erred in Holding that FERC Intruded Illegally upon State Retail Jurisdiction.

For over a decade and consistent with the direction of Congress, FERC has taken action to remove the barriers to participation of demand response in its wholesale markets. In Order No. 745, FERC required its ISOs/RTOs to "permit an aggregator of retail customers (ARC) to bid demand response on behalf of retail customers directly into the organized energy market in a manner comparable to other resources."[11] Unfortunately, in a split vote of the D.C. Circuit panel, the majority erroneously held that FERC lacked jurisdiction over demand response because it is essentially a retail product under the purview of the states. The panel held "demand response, while not necessarily a retail sale, is indeed part of the retail market, which is exclusively within the state's jurisdiction."[12]

The Joint States do not believe that FERC invaded their historic retail jurisdiction by providing rules upon which demand response may participate in wholesale markets. To the contrary, FERC appropriately regulated in an area of shared jurisdiction, involving the decision of end-use customers to curtail

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[11] *Demand Response Compensation in Organized Wholesale Energy Markets*, 134 FERC ¶ 61,187 (2011) (Order No. 745) at ¶ 154.

[12] *Elec. Power Supply Ass'n v. FERC*, 753 F.3d 216, 222 n. 1 (D.C. Cir. 2014).

electric consumption, on one end, as well as the rules for participation and compensation in FERC jurisdictional wholesale markets for a resource that is comparable to generation, on the other.[13] The states and FERC can most effectively regulate this vital resource to its full potential by working collaboratively as implied by the design of the Federal Power Act (FPA).

Importantly, FERC respected the states' historic jurisdiction over retail procurement and rates by providing that any state may require the demand response resources within its boundaries to opt out. The agency required ISOs/RTOs to accept wholesale bids from demand response resources "unless the laws or regulations of the relevant electric retail regulatory authority do not permit a retail customer to participate."[14] FERC clarified that "we will not require a retail regulatory authority to make any showing or take any action in compliance with this rule."[15] Moreover, Order No. 745 does not change a single retail rate nor does it compel a single retail term or condition of service. FERC merely required that its jurisdictional entities, the ISOs/RTOs, accept

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[13] The bulk of the demand response industry involves the work by curtailment service providers such as Petitioner EnerNOC who purchase energy curtailment by end-users and then sell the aggregated product into wholesale markets. The sale for resale is by definition a wholesale transaction, a point the panel did not appropriately address.

[14] *Wholesale Competition in Regions with Organized Electric Markets*, 125 FERC ¶ 61,071 (2008) (Order No. 719) at ¶ 155.

[15] *Id.* at ¶ 53.

bids from demand response resources under certain circumstances, leaving states with the ultimate authority over the eligibility of such resources within their territories.

The Joint States agree with FERC that "demand response is a complex matter that lies at the confluence of state and federal jurisdiction." Order No. 745 at ¶ 114. See also, *Pub. Util. Comm'n of State of Cal. v. FERC*, 900 F.2d 269, 274-75 (D.C. Cir. 1990) (holding that the D.C. Circuit has long recognized that the FPA creates "interlocking jurisdiction" between the states and FERC.) The Solicitor General accurately characterized demand response in wholesale markets as a "hybrid practice" that involves the decisions by end-use customers to curtail load as well as the payment by RTOs for wholesale products. FERC Pet. at 28. For that reason, demand response creates a gray jurisdictional area where as Judge Edwards stated, the jurisdictional line "is neither neat nor tidy." App. 16a. Nevertheless, FERC's Rule did not intrude upon state jurisdiction because it addresses only payments made by wholesale power purchasers for demand-response resources used by wholesale-market operators to set the wholesale price.[16]

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[16] Even though demand response is currently bid directly into wholesale markets, states maintain their traditional authority to set the charges for electricity services to retail customers. Further, some states have developed consumer protection and/or reliability-related criteria with which aggregators of demand response that bid into the ISO/RTO on behalf of

(Continued on following page)

Although opponents of demand response imply that the states can regulate and thus dispatch demand response resources themselves, the truth is not so clear. As the Solicitor General stated, "[u]nder settled FPA preemption principles, States could not regulate the wholesale-market rules addressed in the Rule, because such regulation would directly alter the terms of wholesale transactions." FERC Pet. at 26. Recent Third and Fourth Circuit decisions (which are being challenged in this Court) reject as preempted state commission efforts to increase generation (on the state side of the jurisdictional bright line) through long-term contracts tied to FERC's wholesale markets.[17] Unless overturned by this Court, those two decisions and the panel's decision below could leave demand response in a regulatory void where neither FERC nor the states can

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smaller retail customers need to comply. See, e.g., Southern California Edison Electric Tariff Rule 24, available at https://www.sce.com/NR/sc3/tm2/pdf/Rule_24.pdf; Maryland PSC Order No. 84275, *In The Matter Of An Investigation of The Regulation of Curtailment Service Providers* (August 22, 2011). These are examples of appropriate interlocking state and federal jurisdictional efforts.

[17] See *PPL EnergyPlus, LLC v. Nazarian*, 753 F.3d 467 (4th Cir. 2014), petition for cert. pending, No. 14-614 (filed Nov. 25, 2014); *PPL EnergyPlus, LLC v. Solomon*, 766 F.3d 241 (3d Cir. 2014), petition for cert. pending, No. 14-694 (filed Dec. 10, 2014). The Maryland PSC recently filed a Petition for Certiorari of the *Nazarian* case.

effectively regulate a resource that is critical to both state and federal regulated energy markets.[18]

A regional wholesale market is the platform that has been developed over many years to provide the most efficient mechanism for demand response to be dispatched to help balance supply and demand at a variety of locations across a large grid area. At best, the panel decision leaves only the possibility for a balkanized market to develop, where states are required to patch together individual rules for participation of demand response resources at the retail level, with no clear mechanism for monetarily incentivizing such resources to participate. Such a patchwork approach would operate without the currently available short-term information flow necessary to dispatch demand response consistently with grid needs and market benefits. The likelihood is that huge portions of demand response will simply disappear if the panel's decision is not overturned.

The Joint States agree with the analysis of the Solicitor General and EnerNOC that demand response constitutes a practice that "affects" wholesale rates pursuant to 16 U.S.C. § 824e(a). Demand response has a direct and substantial impact on wholesale markets

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[18] Moreover, attempting to replicate demand response at the state level runs into many of the barriers that prompted FERC to act in the first place. These include a lack of utility and state government incentives to promote demand response, a long history of opposition to dynamic pricing, and collective action problems.

because it decreases wholesale prices, improves system reliability by, for example, compensating rapidly for gaps in generation or transmission availability, and encourages competition, especially in zones that have few energy options available due to transmission constraints or other reasons.[19] The Joint States also agree with the Solicitor General that demand response does not fit within the traditional definition of the sale of electricity, that FERC's interpretation of the term was reasonable, especially given its decade-long experience with demand response, and that the panel erred by failing to give proper deference to the agency's interpretation. Specifically, the panel committed reversible error by failing to evaluate FERC's Rule under both prongs of the *Chevron* analysis. *Chevron U.S.A. Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984).

Additionally, the panel's "no limiting principle" argument is misguided because demand response *directly* affects wholesale prices and clearly constitutes an energy resource; unlike the steel, fuel, and labor, which the panel cites as examples of indirect

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[19] In California, regional air quality boards in various locations limit the emissions of electric generation plants, effectively preventing the construction of additional generation. Similarly, the California Environmental Quality Act (CEQA: Cal. Pub. Resources Code, § 21000 *et seq.*) contains processes and restrictions applicable to state-authorized construction, which may delay or prevent construction in areas inhabited by sensitive or endangered wildlife. Such environmental constraints may give local generators tremendous market power.

factors that may affect wholesale electric prices. Those latter resources do not bid into FERC's wholesale markets and at most create an attenuated effect on bidding. Courts in the past have had no difficulty in distinguishing between direct participants acting within wholesale markets and attenuated effects related thereto. The Joint States do not view the theoretical lack of a limiting principle that is not present given the facts at hand as a valid reason for scuttling the wholesale markets for demand response resources.[20]

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[20] Despite the accusations of the panel to the contrary, in its underlying order, FERC articulated a limiting principle, stating

> We recognize that merely because an input to generation may affect a wholesale rate, our jurisdiction does not extend to the regulation of the input itself. Demand response resources that participate in an RTO- or ISO-administrated organized wholesale energy market, however, are not merely an input cost for generation that indirectly affects wholesale rates. Rather, in the circumstances covered by the Final Rule, demand response resources are direct participants in the organized wholesale energy markets over which we have jurisdiction (just as is generation), and that participation has a direct and substantial effect on rates in those markets.

FERC therefore dismissed the charge that "the Final Rule create[s] a slippery slope that will lead to limitless Commission jurisdiction." Order No. 745-A at ¶ 31.

B. The Panel's Decision Will Cause Significant Harm to Wholesale Markets, System Reliability, and State Policy Goals.

The panel's decision is of substantial national importance because if allowed to stand, it will have a highly disruptive impact on wholesale markets and system reliability, it will devalue massive public and private investment in demand response, and it will undermine state policy and environmental goals.

1. Pricing in Wholesale Markets

FERC has determined that demand response enhances the health and competitiveness of its wholesale markets and indeed is required for wholesale prices to be just and reasonable. The resource promotes competitive pricing in wholesale markets in several respects. First, demand response lowers wholesale prices by reducing a load-serving entity's need to purchase power from the wholesale market and by flattening an area's load profile. For example, demand response reduces the need during peak demand periods to call on highly expensive generator peaking units. Second, demand response reduces price volatility through its disciplining effect on wholesale market prices. Third, demand response mitigates the market power of suppliers of electricity because they have to compete with demand response resources and adjust their bidding strategy accordingly. Specifically, demand response places downward pressure on generator bidding strategies "by increasing the risk to a supplier that it will not be dispatched

if it bids a price that is too high."[21] Finally, demand response reduces transmission rates by relieving congestion on transmission lines that otherwise leads to higher transmission charges.[22]

Because of the salutary benefits of demand response, FERC has determined that its wholesale markets will not produce just and reasonable prices without it. See, for example, Order No. 719-A at ¶ 47 ("reducing barriers to demand response in the organized wholesale markets helps the Commission to fulfill its responsibility for ensuring that those rates are just and reasonable"; and *PJM Interconnection, LLC*, 117 FERC ¶ 61,331 at ¶ 1 (2006) (In order to ensure just and reasonable rates, the Commission "must approve market designs and rate policies that elicit sufficient investment in energy, transmission, and demand response."). See also Order No. 719-A at ¶ 48 ("the current lack of meaningful demand side response is a flaw in the markets operated by PJM which, if not corrected, could lead to dysfunction in those markets."). The Joint States have relied on the FERC's inclusion of demand response to ensure that wholesale electric rates, and the retail rates that are passed on to the states' end-use customers, are just and reasonable.

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[21] Order No. 719-A, *Wholesale Competition in Regions with Organized Electric Markets*, 128 FERC ¶ 61,059 (2009) at ¶ 47.

[22] Order No. 745-A at ¶ 23, n. 51.

It must be noted that in the 1990s, many states, including California, Maryland and Pennsylvania, restructured their electric utility regulation to provide customers with direct access to the competitive market for the generation of electricity. See 66 Pa.C.S. §§ 2801, *et seq.*; and Md. Code Ann., Public Utilities Article §§ 7-501 *et seq.* This restructuring unbundled the generation and transmission of electricity from the regulated public utility, which only retains the responsibility of the distribution of electricity. CAISO and PJM, as the ISO/RTO, now operate the bulk transmission system and the competitive markets for generation under the FERC's regulatory jurisdiction.

By unbundling the generation and transmission services from the state regulated public utilities, California, Maryland and Pennsylvania, as well as other restructured states, have effectively sanctioned more direct customer interaction with the competitive wholesale energy market. Under this restructured paradigm, Load Serving Entities (LSEs) sell electricity either directly to end-use customers or through the regulated utility's default service program. In either case, the price retail customers pay is established by the LSE either directly or through the competitively procured default service program. LSEs, in turn, obtain the electricity from the competitive wholesale markets or through bilateral contracts with generators or both. As such, restructured states rely heavily on the competitive wholesale market to establish just

and reasonable retail rates for generation supply services.

To be truly competitive, end-use customers must be able to respond to the price of energy in the wholesale energy markets. Incongruously, the typical end-use customer pays a flat rate for each kilowatt-hour of electricity used for an extended period that is set by the LSE, thus insulating the customer from the wholesale market price swings. Even those customers that are able to obtain a variable rate for electric supply typically do not know the price of that supply until after they use the electricity and after any real opportunity to react to that price change has lapsed. Thus, while end-use customers in restructured states have more direct access to the competitive market to purchase electricity, that access is through a third-party LSE.

Through its Order No. 719, FERC, in essence did nothing more than to permit third parties to respond to wholesale electric prices in real-time on behalf of end-use customers. In Order No. 719, FERC required ISOs/RTOs to grant access to wholesale energy markets to aggregators of retail customers, except where "the laws or regulations of the relevant electric retail regulatory authority do not permit a retail customer to participate." Order No. 719 at ¶ 154. These third parties include LSEs as well as entities known as Curtailment Service Providers (CSPs). Like the actual sale of electricity to end-use customers, these LSEs/CSPs agree to take or decline to take wholesale

electric service on behalf of the end-use customer based on the wholesale price for that electric service.

2. System Reliability

Demand response in wholesale markets also promotes system reliability and is depended upon by state commissions to ensure resource adequacy. Two particularly challenging characteristics of the electric grid are that it requires "instantaneous balancing of supply and demand" and that large-scale storage of electric energy is not yet economically feasible.[23] FERC has determined that demand response helps address those problems and enhance system reliability by "reducing electricity demand at critical times (e.g., when a generator or a transmission line unexpectedly fails)."[24] See also Order No. 745-A, finding that "demand response generally can be dispatched by the [ISO or RTO] with a minimal notice period, helping to balance the electric system in the event that an unexpected contingency occurs."[25]

The PJM RTO has recently utilized large quantities of demand response to maintain system reliability during extreme weather events. For example, in September 2013, intense hot weather throughout

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[23] Order No. 745 at ¶¶ 55-56.

[24] Order No. 719-A at ¶ 47, n. 76.

[25] *Demand Response Compensation in Organized Wholesale Energy Markets*, 137 FERC ¶ 61,215 (2011) (Order No. 745-A) at ¶ 23.

much of PJM's footprint required the RTO to call upon almost 6,000 megawatts (MW) of demand response resources whose strong response permitted PJM to avoid curtailing firm load.[26] Similarly, during the aptly named January 2014 Polar Vortex, when demand levels skyrocketed 25 percent above normal to reach the RTO's highest ever winter peak demand, demand response provided as much as 3,000 MW to assist PJM in ensuring reliable operation of the grid and avoiding unplanned outages.[27] Following the Polar Vortex, a second series of winter storms and extremely cold weather impacted the PJM region from January 17 through January 29, 2014.[28] During that timeframe, PJM called on demand response four times to address issues with transfers, transmission limits and generating units shutting down, enabling the RTO to maintain reliable grid operation.[29] The CAISO also relied upon demand response in February of 2014 to assure electric reliability in California, which was threatened by the lack of natural gas in

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[26] *PJM Interconnection, LLC, Technical Analysis of Operational Events and Market Impacts During the September 2013 Heat Wave* at 4-6 (2013). http://www.pjm.com/~/media/documents/reports/20131223-technical-analysis-of-operational-events-and-market-impacts-during-the-september-2013-heat-wave.ashx.

[27] *PJM Interconnection, LLC, Analysis of Operational Events and Market Impacts During the January 2014 Cold Weather Events* at 1 and 17. http://www.pjm.com/~/media/documents/reports/20140509-analysis-of-operational-events-and-market-impacts-during-the-jan-2014-cold-weather-events.ashx.

[28] *Id.* at 5.

[29] *Id.* at 37.

the region as a result of high demand from the cold Northeast.

The Maryland PSC has also used demand response as a tool in wholesale markets to ensure the reliability of its electric system. When faced with a potential shortage of generation and transmission resources to meet long-term reliability needs, Maryland required its four investor-owned utilities to issue requests for proposals for demand response resources to "bridge the gap," in what the Maryland PSC has informally referred to as the Gap RFP.[30] In that proceeding, the Maryland PSC procured over 400 MW of demand response to meet short-term reliability needs while longer-term generation and transmission deficiencies were addressed. The contracts entered into with the winning demand response providers required them to bid their aggregated resources into PJM's wholesale markets. This example demonstrates the "interconnected" nature of state and federal jurisdiction regarding demand response resources when those markets are allowed to function together properly. Maryland provided incentives for demand response providers to contract with load in the State for curtailment services, while PJM's wholesale markets provided the organized venue for the providers to bid their resources and receive revenue. Had PJM's wholesale markets not been

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[30] See Maryland PSC Case No. 9149, available at http://167.102.231.189/search-results/?keyword=9149&search=all&search=case&x.x=22&x.y=11.

available, Maryland may not have been able to bridge the reliability gap in time to meet its long-term needs.

Pennsylvania has also experienced robust demand response participation in the wholesale energy market. In 2014, 127 customer locations in Pennsylvania provided 903.3 MW of economic demand response.[31] These resources provided a total of 18,714 megawatt hours (MWh) of economic demand response in 2014, with the totals for the months of January and February amounting to 3,454 MWh and 3,878 MWh respectively.[32] These significant and valuable resources are likely to be lost, negatively impacting market prices and system reliability, if the decision below is not overturned.

3. State Environmental and Policy Goals

The Joint States (and other state commissions) also rely on demand response to meet certain legislatively targeted electric reduction and environmental goals. Demand response can provide several environmental benefits, including that it alleviates the need to build new generation or may displace older, less efficient and high-emissions producing power

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[31] See PJM's 2014 Demand Response Operations Markets Activity Report: January 2015 at 3, available at http://www.pjm.com/~/media/markets-ops/dsr/2014-demand-response-activity-report.ashx.

[32] *Id.* at 16.

plants. Overall, it represents a cost-effective, environmentally friendly alternative to traditional generation.

In 2008, Maryland's General Assembly passed the EmPower Maryland Energy Efficiency Act, which requires that the State's LSEs achieve certain reductions in per capita electricity consumption as well as in peak demand.[33] Specifically, the Act requires that through the effectuation of energy efficiency, conservation, and demand response programs, each electric company in the State achieve a 15 percent reduction in per capita electricity consumption by the end of the year 2015 as well as a 15 percent reduction in per capita peak demand within the same timeframe.[34] Over the years, the implementation plans of the State's LSEs have relied increasingly on demand response programs, offered through PJM's wholesale markets, to achieve their goals.

Since 2009, Maryland has designed and offered to the State's end-use customers a large portfolio of demand response programs financed in part through participation in PJM wholesale markets. The programs have produced substantial results, including total annualized energy savings of 4,549,782 MW-hours and total coincident peak demand reduction of 1,894 MW through 2015. In 2012, a total of 625 MW of demand response was bid into the PJM capacity

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[33] Md. Code Ann., Public Utilities Article § 7-211.

[34] *Id.* at § 7-211(b)(2).

market by Maryland LSEs for Delivery Year 2015-2016, which is expected to produce revenue to defray program expenses and incentive payments of $69 million, approximately one-third of the total costs of the program.[35]

Demand response programs offered through EmPower Maryland and used in conjunction with PJM's wholesale markets have enabled customers to reduce peak demand, thereby lowering retail electric prices and reducing the need for the construction of new generation resources, which even in compliance with the newest and most stringent standards, would have produced detrimental impacts on the environment. However, jurisdictional cooperation between the states and FERC are required for this to happen. For that reason, FERC's treatment of demand response in its wholesale markets represents cooperation between the federal and state agencies, and not an intrusion of federal authority upon state jurisdiction, as wrongly portrayed by the panel.

California's Renewable Portfolio Standard (RPS) requires retail sellers, investor-owned utilities (IOUs), electric service providers (ESPs) and community choice aggregators (CCAs) regulated by the California PUC to procure 33 percent of their annual retail sales

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[35] See Maryland PSC, EmPower Maryland Energy Efficiency Act – Standard Report of 2014 (March 2014), available at http://webapp.psc.state.md.us/intranet/Reports/2014%20EmPOWER%20Maryland%20Energy%20Efficiency%20Act%20Standard%20Report.PDF.

from eligible renewable sources by 2020.[36] The RPS also requires retail sellers to achieve intermediate RPS targets of 20 percent from 2011 through 2013 and 25 percent from 2014 through 2016. The California Solar Initiative (CSI) and Self-Generation Incentive Program (SGIP) provide incentives for customers to install renewable distributed generation that directly serve their on-site load.[37]

As states have chosen to increase their reliance on intermittent renewable generation capacity like wind and solar power, additional balancing resources are required to address inconsistencies in energy supply, for example when wind and sun generation output vary based on local weather conditions.[38] Thus, geographically and temporally dispatchable demand response is a key tool for the integration of renewable resources in California.

Pennsylvania continues to regulate retail demand response. Particularly, in 2008, the Pennsylvania General Assembly enacted Act 129 of 2008, P.L. 1592, No. 129, which required seven Pennsylvania electric distribution companies (EDCs) with at least 100,000 customers to reduce electric demand by a minimum of 4.5 percent in the 100 hours of highest

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[36] Cal. Pub. Utils. Code, §§ 399.11-399.32.

[37] More information on the CSI and SGIP can be found on the California PUC's website: http://www.cpuc.ca.gov/PUC/energy/DistGen/.

[38] http://www.enernoc.com/our-resources/term-pages/what-is-an-ancillary-services-market.

demand by May 31, 2013. See 66 Pa.C.S. § 2806.1(d). In an Order adopted on March 20, 2014, the Pennsylvania PUC determined that all seven EDCs met or exceeded this requirement.[39] It should be noted that these EDCs met this requirement with a combination of energy efficiency and demand response programs, without interference from the wholesale electric market.

Act 129 requires the Pennsylvania PUC to assess the cost-effectiveness of these programs on an ongoing basis. If the benefits exceed the costs, the Pennsylvania PUC must set additional requirements for peak demand reduction. 66 Pa.C.S. § 2806.1(d)(2). On February 20, 2014, the Pennsylvania PUC adopted an order directing that a study be conducted to determine whether continuing the peak demand program will be cost-effective.[40] In that order, the Pennsylvania PUC directed that the study assess whether the Act 129 demand reduction programs provide incremental benefits in addition to the benefits provided by demand reduction resources participating in the wholesale markets.[41] This further demonstrates the separate and independent operational capabilities

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[39] See *Energy Efficiency and Conservation Program*, Order at Docket Nos. M-2008-2069887 and M-2012-2289411, entered on March 20, 2014 at 15-19.

[40] See *Energy Efficiency and Conservation Program*, Order at Docket Nos. M-2008-2069887 and M-2012-2289411, entered on February 20, 2014.

[41] *Id.* at 56.

and effectiveness of state run programs and wholesale market programs available to those who choose to participate, as Judge Edwards recognized. Dissent at 21. FERC, through Order No. 745, has in no way imposed its rules upon Pennsylvania's programs.

4. Advanced Metering Infrastructure

In reliance on federal-state cooperation regarding demand response, states have spent billions of dollars to develop and deploy technologies necessary to enable a smart electric power grid. The Joint States have invested in advanced automated metering infrastructure, in which digital technologies are applied to all aspects of the industry, from generation to transmission, to distribution, to the customer interface.

For example, the California PUC authorized its retail investor owned utilities to install approximately 11.4 million electric smart meters and related advanced metering infrastructure. One purpose of the widespread installation of residential smart meters is to facilitate customers' use of Home Area Network technology to monitor and tailor their energy use in response to market signals.[42] On top of such expenses,

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[42] News Release: *CPUC Acts to Ensure Consumer and Market Benefits From Smartmeters*, available at http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M029/K624/29624551.PDF; and Energy Division RESOLUTION E – 4527, available at http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M028/K949/28949960.PDF.

aggregators of retail customers' demand response capabilities must comply with ISO/RTO requirements for scheduling coordinators in order to bid into wholesale markets, such as substantial annual payments and financial security arrangements.

In addition to establishing a retail demand response program, Pennsylvania's Act 129 of 2008, P.L. 1592, No. 129, also required the universal deployment of smart meters. This Act required that the smart meters be deployed to give customers direct access to their hourly consumption, enable time-of-use rates and support automatic control of electric consumption by the customer, the utility or, significantly, a third party, such as a CSP, engaged by the customer or the customer's utility. 66 Pa.C.S. § 2807(f) and (g).

Similarly, the Maryland PSC has authorized extensive deployment of smart meters in the State, with more than 2.4 million of these meters already installed.[43] Moreover, as explained in the EnerNOC Petition, private companies have also invested heavily in advanced metering infrastructure, in addition to their informational campaigns to inform customers of the availability and benefits of demand response. The

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[43] *Re Baltimore Gas and Electric Company*, 101 Md. PSC 401 (2010); *Re Potomac Electric Power Company*, 101 Md. PSC 448 (2010).

panel's misguided decision jeopardizes all of those investments.[44]

5. Other Ramifications of the Panel's Decision

The panel's decision addresses only the wholesale energy market operated by PJM. However, the sweeping decision of the panel that FERC acted *ultra vires* will have much larger consequences. Of course the wholesale energy markets in RTOs other than PJM are affected as well. However, demand response participates in multiple wholesale markets beyond the energy market. In PJM alone, FERC has approved programs to allow demand response to be used as a capacity resource,[45] as a resource during system emergencies,[46] and to allow wholesale buyers and qualifying large retail buyers to bid demand response directly into the day-ahead and real-time energy markets and certain ancillary services markets, particularly as a provider of operating reserves, as well

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[44] Dissenting FERC Commissioner Moeller (who dissented only regarding the compensation for demand response, not FERC's jurisdiction over the resource), aptly articulated the many benefits of demand response, stating "[N]owhere did I review any comment or hear any testimony that questioned the benefits of having demand response resources participate in the organized wholesale energy markets. On this point, there is no debate." Order No. 745, Commissioner Moeller Dissenting Opinion at 1.

[45] *PJM Interconnection, LLC*, 117 FERC ¶ 61,331 (2006).

[46] *PJM Interconnection, LLC*, 99 FERC ¶ 61,139 (2002).

as programs to accept bids from demand response aggregators.[47]

The most vital wholesale market for demand response resources is the capacity market, where the resources obtain most of their revenue. For example, in PJM, providers have bid over 10,000 MW of demand response into PJM's capacity auction each year from 2012 through 2014 (delivery years 2015-2017), with nearly 11,000 MW bidding into the last auction. Nevertheless, on the day that the panel issued its decision, opponents of demand response, led by FirstEnergy, filed a complaint with FERC asking that PJM be required to remove from its tariff all references to demand response in its wholesale capacity markets and that PJM be ordered to re-run its 2014 annual capacity auction, with all demand response removed from the supply bids.[48]

PJM's Independent Market Monitor filed an analysis estimating the consequences of removing demand response from PJM's May 2014 capacity auction and concluded that capacity prices would escalate by over 100 percent from a PJM-wide price of

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[47] *PJM Interconnection, LLC*, 99 FERC ¶ 61,227 (2002).

[48] See Complaint, *FirstEnergy Serv. Co. v. PJM Interconnection, LLC*, FERC Docket No. EL14-55-000 (filed May 23, 2014). This complaint was followed by a similar complaint with respect to the market administered by New England's ISO. See Complaint, *New England Power Generators Assoc. v. ISO New England, Inc.*, FERC Docket No. EL15-21-00 (filed Nov. 14, 2014).

$120 per MW-day to $282.16 per MW-day. Prices in other sub regions would also escalate significantly. Overall, the increase in capacity prices that would be imposed on end-users from removing demand response from the auction's supply bids would be over $9.3 billion.[49] Nationwide, the removal of demand response from all RTO capacity auctions would be staggering.

C. Various Courts of Appeals Decisions Have Caused Confusion regarding State and Federal Authority under the Federal Power Act.

As discussed by EnerNOC, various Courts of Appeals have issued decisions that cause confusion regarding state and federal authority over the procurement of, and payments for, electric generation facilities. Joint States agree with this argument. Further, given the massive scale of demand response resources operating in wholesale markets and the critical state policies attached to them, this case presents extremely important issues for Supreme Court review and resolution.

Here, the Court of Appeals interpreted the Federal Power Act's allocation of authority over retail very broadly: So broadly, in fact, that even retail customers in states that expressly seek to offer their

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[49] Monitoring Analytics, The 2017/2018 RPM Base Residual Auction: Sensitivity Analyses at 5 (July 10, 2014).

demand response capabilities into FERC-regulated energy markets are barred from receiving payment for such services. No state sought such remedy. This is likely because FERC did not require states to permit its retail demand response to engage in such direct bidding. Thus, FERC did not infringe upon state choices over long-term energy supply planning and procurement authority. On the contrary, as discussed above, the opinion below hinders the joint efforts of state and federal regulators to develop interlocking energy procurement and dispatch systems that include effective, dispatchable demand response.

CONCLUSION

The decision of the Court of Appeals adopts an erroneous and destructive interpretation of "states' rights" that will artificially decrease wholesale electric market competition, and increase energy and long-term procurement costs. This decision will cause traditional generators to reap artificially inflated financial gains from customers with no actual benefit to energy market liquidity, state authority over procurement or end-use customers. If not corrected, the decision below will deprive retail customers (commercial, industrial, agricultural, and residential) of the benefits of years of market development, immense investments in development of hardware and software; the environmental benefits of demand

response; and the ability to better manage their energy costs.

The question presented by Petitioners is of significant importance to state retail procurement authorities and numerous businesses that participate in wholesale and retail energy procurement, and it directly impacts retail customers' ability to monitor and control their energy costs. Joint States have each made extensive investments in technology and customer education to facilitate the expansion of opportunities for retail electricity customers to be informed of and modify their electric usage based on market signals. Private businesses have also invested in technology and infrastructure based on years of wholesale and retail market development directed by FERC and the states. Such goals are consistent with, and supported by federal law, prior FERC orders and national energy policy. The Joint States agree with Petitioners' argument that the Court of Appeals incorrectly decided a critically important issue of national significance about the scope of FERC's jurisdiction. Joint States therefore

respectfully request that this Court grant certiorari in the instant case.

Respectfully submitted,

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